

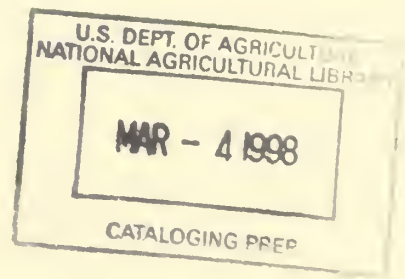
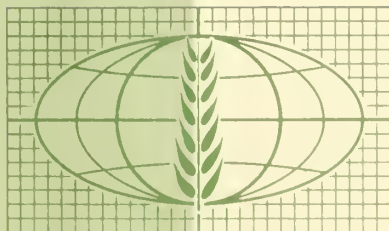
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# THE AGRICULTURAL ECONOMY AND TRADE OF HUNGARY



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## SUMMARY

Major new economic reforms in Hungary are resulting in higher farm prices, greater flexibility for farms in marketing their products and acquiring farm inputs, greater farm control over use of land, labor, and capital, and a general slackening of central direction of farm activities.

The reforms--generally referred to as the New Economic Mechanism (NEM)--were introduced in January 1968 to correct shortcomings which were retarding growth and efficiency throughout Hungary's economy.

Agriculture is receiving greater emphasis under the NEM, after a postwar period of neglect and slow growth. In the total economy, the reforms are designed to reduce the rigidities of planned economic activity under tight governmental control and allow market forces and individual initiative to play a greater role.

The development of agricultural production in postwar Hungary reflects the relatively low priority given agriculture until recently, the impediments to development imposed by organizational changes and uncertainties associated with collectivization, and the tight governmental control exercised over agriculture. While industrial development was furthered under communism after the war,

agricultural growth was retarded and agriculture's relative significance in the economy declined.

Over the decade and a half after 1950, the availability of machinery, fertilizer, and other capital investments increased substantially, but this improvement was largely offset by the very rapid decline in the agricultural labor force, the disruption in agriculture brought about by collectivization, and the low incentives and low standard of living associated with agriculture.

Little change took place in the output of most crops between 1951-55 and 1961-65. Corn and sugarbeet production increased, but output of most other crops declined or changed little. The numbers of hogs, sheep, and poultry increased, but cattle and cow numbers declined. Output of most livestock products increased significantly, however, reflecting improved feeding efficiency, increased feed supplies, and increased numbers of hogs, sheep, and poultry.

Although agricultural trade is now relatively much less significant than before World War II, Hungary continues to be an important exporter of meat, fruit, vegetables, eggs, and wine. Hungary's principal imports from the United States are feedgrains and other feedstuffs.



# THE AGRICULTURAL ECONOMY AND TRADE OF HUNGARY

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## INTRODUCTION

Hungary introduced an economic reform on January 1, 1968, which promises to bring about important changes in Hungarian agriculture. Rigid central controls, applied since 1949, are being relaxed. Quantitative production targets are no longer issued, and the previous "command" economy is in the process of being transformed into a "guided" economy.

Although a sudden economic upswing cannot be expected to result from these reform measures, they should be considered as marking a clear division between past and future Hungarian agricultural policy and performance. These changes are still in the introductory stage, but they deserve careful

consideration because they are symptomatic of the kind of change taking place throughout East European agriculture.

The new policy gives relatively greater economic priority to agriculture. It also attempts to correct the shortcomings in organization, management, and other aspects of agriculture which have been responsible for the slow growth of the agricultural sector since 1950.

Increasing agricultural production in the future, thereby reversing the trend of the past 20 years, will largely depend on how actively these new policies are pursued.

## AGRICULTURE IN THE ECONOMY

World War II put an end to lingering elements of feudalism in Hungary. Before the war, land was unevenly distributed; only 1 percent of the landowners possessed farms of over 50 hectares, and these holdings accounted for 48 percent of the agricultural land. Agriculture dominated economic life. More than half the labor force was engaged in agriculture, and more than half the value of exports originated in the agricultural sector.

Following the war, land was redistributed and later collectivized. Agricultural

producer prices were kept below the costs of production. Neither collectives nor state farms were able to accumulate funds for inputs or investments. The imposition of collective farming and rigid controls outweighed considerations of efficiency and productivity. Development of industry received priority, while agriculture was permitted to stagnate.

Per capita income on collective farms was less than the national average throughout the postwar period; consequently, many of the





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younger and more able farm workers left farming, taking advantage of better urban job opportunities. By 1966, the share of agricultural workers in the total labor force had declined from the prewar 51 percent to 31.5 percent. In the past 20 years, machinery has gradually replaced man and animal power. Since 1947, the animal/machine draftpower ratio has shifted from 3:1 to 1:3.

Since 1960, application of technological and biological knowledge has increased sharply in Hungarian agriculture. As a result, wheat and corn yields have increased particularly. But because of low prices, inefficient man-

agement, and low labor productivity, farm operations have remained unprofitable.

Since 1960, agriculture's share in national income, or net national product, has varied between 20 and 23 percent. An upward revision of producer prices in 1968 can be expected to improve agriculture's share.

Agricultural exports during 1964-66 accounted for about 22 percent of the total value of exports, compared with approximately 60 percent in 1936-38. This drop reflects an increase in industrial exports rather than a reduction in agricultural exports, as well as Hungary's gradual shift from an agricultural to an industrial economy.

## POPULATION

The population of Hungary on January 1, 1967, was 10.2 million, similar to that of Ohio. The rate of population growth--below

0.5 percent for the past 5 years--is the slowest in Europe except for East Germany's. To encourage an increase in population, the



Government has raised family allowances, extended maternity leaves, and granted housing priorities to larger families. In 1967, a slight increase in the population growth was reported.

Population density of 281 persons per square mile is slightly more than the figure for Pennsylvania. Two million people live in Budapest, the capital, and four other cities have over 100,000 inhabitants.

## PHYSICAL ENVIRONMENT

Hungary is situated in the Carpathian Basin on a territory of 36,000 square miles, about the area of Indiana. The country comprises less than 2 percent of the total area of Europe, excluding the U.S.S.R. Except for Austria on the western frontier, it is surrounded by Communist nations: Czechoslovakia on the north, the Soviet Union on the northeast, Romania on the east, and Yugoslavia on the south.

The major geographical areas are: The "Great Plain," a lowland with two navigable rivers, the Danube and the Tisza; "Transdanubia," a rolling area west of the Danube; the "Small Plain" in the northwest; and the mountainous area stretching through the central and northern parts of the country. There are no high mountains, the highest peak in Hungary being 3,000 feet.

The climate is temperate with continental influences from the east and moderating

oceanic effects from the west. Warm summers and cold winters are distinctly separated by a transitory spring and fall. All the wheat and two-thirds of the barley are planted in the fall. Spring seeding usually starts in March with small grains. The vegetation period is long, suitable for higher yielding corn varieties which need vegetation periods extending until October.

The average yearly precipitation of 24 inches is often unevenly distributed. Peak precipitation is usually in the spring and fall; summer drought is quite frequent, particularly in the "Great Plain" area.

Soil conditions vary greatly from fertile black through chestnut forest soils to sandy and alkaline types. Soil of volcanic origin covers some mountain slopes. The southern sides of the volcanic mountain slopes are well suited for vineyards.

## AGRICULTURAL POLICY

The direction of Hungary's economy in the postwar period has been determined by a succession of 5-year plans. These plans, which had rigid output targets, were often unfulfilled or had to be modified after they were put into effect. Central government involvement often delayed and complicated local implementation. As a result, economic growth slowed during the 1950's. Inventories of unsalable items accumulated to an undesirable level, while consumer demands for many commodities were not met. Quality was often low.

On January 1, 1968, a so-called "New Economic Mechanism" (NEM) was introduced in the Hungarian economy. The NEM is designed to correct these shortcomings of central direction, and a major intent is to promote balanced growth in every segment of the economy.

The shift in economic thought was preceded by several years of deliberation and planning. To facilitate a smooth transition, preliminary measures were taken during the previous 2 years; these included changes in

price relationships, changes in methods of marketing farm produce, and reorganization in the government.

Principal ideas incorporated in the NEM are;

1. A flexible price policy, with more consideration given to costs of production and to scarcity relationships;

2. A shift in enterprise operation from central direction to local management;

3. Use of profit as the chief indicator of efficiency;

4. Submission of production choices to domestic and foreign market pressures.

The price policy is designed to let market forces influence production decisions. For the present, prices of basic foods will be regulated or fixed. About 70 percent of agricultural producer prices belong in these categories. For example, foodgrain prices are fixed and feed prices will be allowed to fluctuate within limits. Some fruit and vegetable prices will be free to fluctuate with supply and demand.

As a transitional measure, average agricultural prices were raised by 9 percent in 1966 and again by 8 percent on January 1, 1968. Consumer prices were not raised in 1968. Under the NEM, all farms are expected to plan for a profitable operation. The Government expects that production decisions will be based on cost-price relationships. With increased producer prices, the possibilities for profitable operations and higher retained earnings have improved.

As a special measure to relieve the financial burden on farms, debts of collective farms have been reduced or nullified. With state farms, research activities will be financed by all farms which are beneficiaries. In this way, research costs cannot be an excuse for government subsidy.

In the calculation of profits, a more meaningful system of accounting has been

made mandatory. Land rent and interest on capital will be carried as costs; this should serve as a brake on wasteful uses of these resources.

Wholesale farm commodity marketing is being reorganized to develop competition. Until 1957, a compulsory delivery system fixed the quantities of commodities to be sold by farms to the Government. This system was replaced with contract buying, a somewhat more flexible system. For the contracted quantities, the state guaranteed prices in advance of the harvest, regardless of how good or bad it was. But in this system, the state purchasing agency had a complete monopoly in buying and the farmers had no bargaining power. Recently, several purchasing agencies were created to give farmers a choice in the marketing of their products. Prices and contract conditions can differ. However, for any one commodity only one buyer can be selected.

Local farmers' markets for selling fruits, vegetables, and some animal products are permitted. Local marketing of breadgrains, slaughtered cattle, tobacco, raw hides, raw wool, and paprika is still prohibited.

A stated aim of Hungarian policy is to raise the farming population's living standard to the national level. To achieve this goal, "horizontal" and "vertical" cooperation are urged. Through horizontal cooperation, farms are expected to pool their resources and gain the advantage of more efficient large-scale operation. Such cooperation would include cooperative use of machinery and storing, drying, and refrigerating facilities, or cooperative livestock feeding operations. Vertical cooperation is designed to promote closer cooperation between agriculture and related industries and services. This type of cooperation is expected to provide the farm population with off-season job opportunities and to bring scientific knowledge and techniques closer to farms. It is hoped that the farm population will supply additional manpower to industries which process agricultural commodities, such as sugar refineries, textile mills, and milk processing plants. These industries will, in turn, deliver better seeds, provide advice

about advanced cultivation practices, and give financial help through seed loans and advances on the crop prior to harvest.

The Ministry of Agriculture and the Ministry of the Food Industry have been combined to coordinate production and processing.

## ORGANIZATION OF AGRICULTURE

To gain peasant support after World War II, the Government redistributed land in 2- to 3-hectare holdings. Also, some large estates were taken over by the state and formed into state farms. The newly created small peasant holdings were too small for efficient operation, and the new owners were plagued with capital shortages.

Agricultural production deteriorated and by 1949 the Government began a campaign of collectivization. The process of collectivization was completed in 11 years. Since 1949, collectives have passed through three stages of development:

1. 1949-60 was the period of consolidation. Until 1957, progress and regression alternated as measured by number and size of collectives and state farms and size of membership in collectives. After 1957, the movement toward consolidation accelerated until its conclusion in 1960.

2. 1961-65 was a period of stabilization. Farming practices were improved, management gained experience, and government support for farming increased.

3. Since 1966, specialization and local decisionmaking have been emphasized.

A broad official categorization divides farming into the socialized and private sectors. Collectives, cooperative groups, state-operated farms, auxiliary farms, and machine stations are all components of the socialized sector. Collective farms are centrally managed organizations which require members to pool their resources and to work the farm and

National and regional cooperative councils have also been formed to help formulate and develop agricultural policy. Similar economic reforms in East Germany and Czechoslovakia preceded the Hungarian NEM by 1 year, and this enabled the Hungarians to evaluate effects of the reforms in those countries.

distribute the profits cooperatively. Among cooperative groups, land use remains the responsibility of the individual owner and only certain activities are performed cooperatively, such as joint cultivation, purchasing, and marketing. In 1966, only 239 such groups were in operation, in contrast with 3,181 collectives. Collectives and cooperative groups together represent the largest segment of the socialized sector, accounting for 77 percent of Hungary's agricultural land and 80 percent of its arable land.<sup>1</sup>

An integral part of the collectives, but cultivated individually, is the household plot. The maximum size of these plots is .5<sup>1</sup>/<sub>2</sub> hectare (1.422 acres). Working members of collectives and permanent full-time hired workers are eligible to cultivate these household plots.

Household plots account for a large part of the output of some commodities, supplying almost half of total corn produced on collective farms, 70 percent of total grapes and fruit, and over half of total poultry, milk, and eggs.

In accordance with the reorganization of the economy, a new statute became effective for collectives in 1968. This statute ties the right to cultivate household plots to a minimum work contribution on the collective farm. Retired members are excepted from the minimum work requirement. Other important parts

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<sup>1</sup> Agricultural land includes arable land, gardens, orchards, vineyards, meadows, and pastures. Private land in Hungary includes both the sown area and fallow areas which are normally cultivated.



of the statute are concerned with a guaranteed minimum wage, improved social benefits, wider profit distribution, and a changeover to better accounting methods.

State farms contain 17 percent of the agricultural and 14 percent of the arable land. This group of farms also includes village-administered land and land held by state-owned enterprises and institutions. State farms are supposed to serve as models for other farm units. They conduct research and disseminate knowledge to farmers on improving production techniques. Despite their historic priority in investment distribution among agricultural enterprises, and their higher than average yields, state farms are rarely self-supporting.

Auxiliary farms are similar to the private household plots of collective farm members. They comprise an average of less than one-half hectare and are allotted to industrial workers and state farm employees. Only 3 percent of Hungary's arable land is privately owned, and most of this land is in areas unsuitable for integration into the socialized sector.

In 1966, the average size of collective and state farms was 1,450 and 4,762 hectares, respectively. The number and size of state farms have remained relatively constant since 1962, but some additions to or amalgamations of collective farms are still occurring. The total number of agricultural wage earners was 1.5 million in 1967; 1.2 million were working in collectives and cooperative groups, 300,000

were on state farms and other state enterprises, and 56,000 were farming privately.

In the early stages of collectivization, centrally located machine stations were set up to provide machinery for ill-equipped farms. Since 1955, the number of machine stations has been reduced yearly and the collective farms have been encouraged to buy their own machinery with the help of state credits. The number of machine stations dwindled from a peak of 368 in 1951 to 163 in 1966. While the stations are still serving some of the financially weak farms, their primary function has been changed to repairing machinery, training machine operators, and advising farm management.

Landownership in collective farms is regulated by a 1968 law enacted to foster collective ownership of all land in collective farms. The law also serves to end the confusion and complications which arose out of earlier, conflicting ownership rights. Before enactment of this law, farmers who joined collectives retained title to their land. Absentee ownership developed because collective farm members could retain title to their land after relinquishing membership in the collective, and could pass title to their descendants. The new law abolishes absentee ownership. Absentee owners may join collectives if approved by the members; otherwise, they must "sell" their land for an unspecified indemnification. Active collective farm members are expected to sell their land to collectives, but by the end of 1968 no coercion had been used.

## INVESTMENT AND INPUTS

Agriculture's share in total investment increased between 1950 and 1965. Its share (in 1959 prices) was as follows for 1950 through 1966:<sup>2</sup>

<sup>2</sup> *Statisztikai Havi Kozlemenyek*, Budapest, May 1967, p. 477.

<u>Percentage of total investment</u>	
1950-54	13.3
1955-57	16.4
1958-60	17.8
1961-65	19.5
1966	16.8

The peak investment year in agriculture was 1964. Investment declined in 1965, 1966, and 1967 in both absolute and percentage terms. Under the NEM, state funds will cover only about half the country's total investment needs, as opposed to earlier years when they were the main source. Twenty-nine percent will be furnished from retained earnings of enterprises, and 20 percent from credits. In agriculture, the share of state funds will probably be higher, but local management will decide upon the use of over 90 percent of total agricultural investment.

Under the NEM, there is a tax on farm profits. Profits after taxes will be left with the farms, but their distribution will be regulated. A portion of profits must go to the development fund, the wage fund, and the reserve fund, according to a predetermined formula.

In addition to a profit tax, a land tax is levied on all agricultural enterprises, even on household plots. This is a graduated tax increasing with the value of land. Another state revenue source is the "turnover tax," which is in essence a sales tax on many items and one which has had rather arbitrary application.

Under the NEM, credit will be available and dispensed by banks in accordance with government guidelines. Collectives will be charged an interest rate of 5 percent, compared with the normal 8-percent rate for short term circulating funds. Medium and long term credits will be granted to state and collective farms at 3-percent interest.

Mechanization has absorbed a large part of agricultural investment. Since 1949, the

number of tractors has grown from 13,000 to 67,500 (physical units). Now, one tractor unit is available for every 59 hectares of arable land. Small grain production is reported to be completely mechanized, and potatoes and sugarbeets are mechanically harvested on 90 percent of state farms and 40 percent of collectives. Future investment is expected to shift from machinery to construction of animal shelters, storage facilities, and grain driers.

Fertilizer use increased from 4 kilograms of plant nutrients per hectare in 1949 to 70 kilograms per hectare in 1967. The rate of increase in use of fertilizer is limited by insufficient domestic production and resultant heavy reliance on imports. The Government is encouraging greater domestic production in an effort to conserve foreign exchange.

Under the NEM, government subsidies will be granted for irrigation and other major land improvement projects. Presently, Hungarian irrigation facilities can supply water to about 400,000 hectares, and additional facilities are being built.

Research expenditures account for 2 to 3 percent of national income. Agricultural research is aimed at improving farm management, crop varieties, and livestock breeds. Hungary also obtains research results through international cooperation within the Council of Economic Mutual Assistance (CEMA).<sup>3</sup> Bilateral arrangements are in force with some of the smaller West European countries.

In the past 5 years, government expenditures for agricultural education have increased significantly the number of agricultural specialists.

## AGRICULTURAL PRODUCTION

Hungary is well endowed with land suitable for cultivation; 6.9 million hectares, almost three-quarters of the total land area, are used in agricultural production; 5.3 million of these are arable.

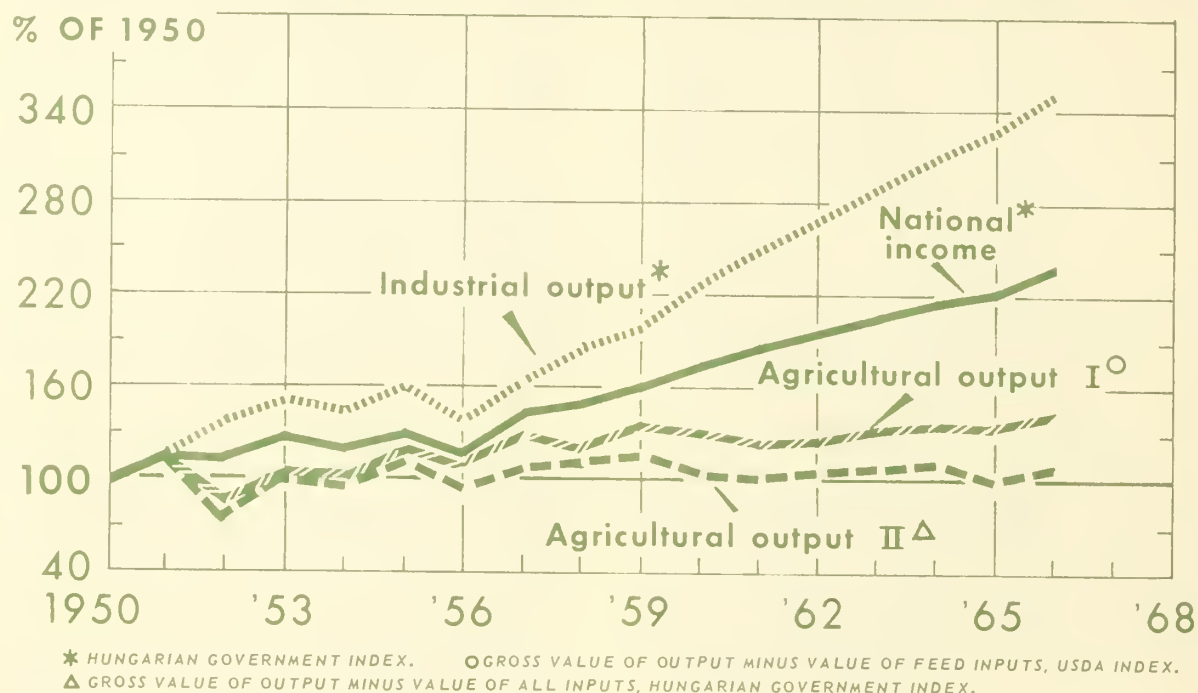
Agricultural land decreased 600,000 hectares between 1935 and 1965. Half the land

taken out of cultivation has been reforested, and half has been absorbed by industry, buildings, and roads. During those 30 years, the area of gardens, vineyards, and orchards

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<sup>3</sup> CEMA members are Bulgaria, Czechoslovakia, East Germany, Hungary, Mongolia, Poland, Rumania, and the U.S.S.R.

# NET INDUSTRIAL AND AGRICULTURAL OUTPUT OF HUNGARY AND NET NATIONAL INCOME



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Figure 1

almost doubled, increasing its share in agricultural land from 4 percent to 8 percent; losses occurred in plowland, pastures, and meadows.

Net value of agricultural production<sup>4</sup> remained stagnant in the postwar period, partly as a result of unfavorable price relationships between agricultural commodities and inputs, and partly because of low labor productivity and inefficient management. Gross agricultural production, however, increased 46 percent between 1950 and 1966. Patterns of growth in the crop and livestock sectors differed greatly from one another

during those 16 years, but by 1966 the increase in output of both sectors was about the same (figure 1).

The most significant postwar change in the cropping pattern has been the reduction in breadgrain area from 40 percent of arable land in 1931-40 to an average of 25 percent in 1961-65 (table 1). Over 1 million hectares of land have been diverted in the postwar period from breadgrain production to other uses. The shift from wheat and rye to other crops began when land was redistributed after World War II. Small peasant farms were less concerned with marketing breadgrains and more concerned with improving their own consumption patterns by increasing livestock output and consuming more livestock products. The trend away from breadgrains persisted during the collectivization process. The price structure and procurement system did not

<sup>4</sup> Net production is calculated by the Hungarians as gross production less cost of materials and inputs, replacement costs, and depreciation. Net output when measured as simply the value of output minus feed, seed, and waste shows an increase of about 25 percent from 1950 through 1966.

Table 1.--Percentage distribution of arable land by crop usage, Hungary, averages 1931-40 and 1951-65, annual 1966

Crop	Averages				1966
	1931-40	1951-55	1956-60	1961-65	
	Percent				
Bread grain <sup>1</sup> . . . . .	40.0	31.7	29.4	25.3	24.3
Feed grain except corn <sup>2</sup> . . . . .	12.4	11.1	12.1	12.1	11.9
Corn . . . . .	20.8	22.9	24.5	24.8	24.4
Pulses <sup>3</sup> . . . . .	0.7	1.3	1.4	2.0	2.3
Sugarbeets . . . . .	0.8	2.1	2.1	2.4	2.1
Fiber crops <sup>4</sup> . . . . .	0.3	0.7	0.7	0.7	0.7
Oil crops <sup>5</sup> . . . . .	0.5	3.4	2.1	2.8	2.5
Other industrial crops <sup>6</sup> . . . . .	0.4	0.5	0.5	0.6	0.7
Potatoes . . . . .	5.2	4.2	4.4	4.3	3.9
Vegetables . . . . .	1.0	2.1	2.1	2.3	2.5
Forage crops <sup>7</sup> . . . . .	14.5	16.3	17.1	18.8	19.2
Other crops . . . . .	0.9	1.9	1.6	1.3	1.2
Fallow . . . . .	2.5	1.8	2.0	2.6	4.3

<sup>1</sup>Wheat and rye.

<sup>2</sup>Barley and oats.

<sup>3</sup>Peas, beans, and lentils.

<sup>4</sup>Flax and hemp.

<sup>5</sup>Sunflower and rape.  
etc.

<sup>6</sup>Rice, tobacco, poppyseed, etc.

<sup>7</sup>Alfalfa, clover, corn for silage,

Source: Mezogazdasagi Statisztikai Zsebkönyv, 1967, p. 54.

induce a return to the old pattern. In the 1960's, yields increased enough so that increases in the breadgrain area were unnecessary. To avoid a further loss in breadgrain area, however, the Government now maintains a compulsory acreage quota, and the wheat price has been increased to bring wheat into a better relationship with other crops. Wheat yields have increased considerably, while rye yields have remained low. This has resulted in a drastic reduction of the rye area and a trend toward wheat instead of rye. The policy goal of the 1960's to be self-sufficient in breadgrain production was first achieved in 1965. A record yield in 1967 resulted in some surplus, and some wheat was used for feeding purposes.

Average corn area in 1961-65 was 8 percent larger and average yield 42 percent higher than the prewar average (table 2). Technological progress in cultivation and the rapid spread of hybrid corn were the most

important contributors to this achievement. The barley area is larger than before the war, and yields have increased. The area and production of oats, however, have decreased along with the reduction of horses on farms.

Recent trends indicate a halt in growth of industrial crop area, especially that of sugarbeets and sunflowers. Losses of farm labor and changed price relationships are apparently causing a shift away from labor-intensive crops.

In the livestock sector, hog, sheep, and poultry numbers increased in the postwar period. Cattle numbers, about 2 million in 1966, show little change from 1935, but the share of cows in total cattle numbers declined from 46 percent to 38 percent.

Although hog numbers have risen in a 3-year cycle with a sharp drop in the fourth year, they have always recovered enough to



Table 2.--Production, yield, and area of Hungary's principal crops, averages 1931-40 and 1951-65, annual 1966

Item	Unit	Average				1966
		1931-40	1951-55	1956-60	1961-65	
Wheat production . . . . .	1,000 tons	2,196	2,005	1,794	1,965	2,191
Yield . . . . .	Cent./ha.	13.7	14.6	15.0	18.6	21.6
Area . . . . .	1,000 ha.	1,606	1,371	1,198	1,056	1,087
Rye production . . . . .	1,000 tons	727	584	430	260	242
Yield . . . . .	Cent./ha.	11.2	11.9	11.4	10.8	11.0
Area . . . . .	1,000 ha.	634	487	378	240	222
Barley production . . . . .	1,000 tons	628	685	884	996	916
Yield . . . . .	Cent./ha.	13.5	16.3	17.8	18.7	18.7
Area . . . . .	1,000 ha.	464	422	495	516	490
Oats production . . . . .	1,000 tons	286	162	218	96	72
Yield . . . . .	Cent./ha.	12.4	12.5	14.1	11.4	11.9
Area . . . . .	1,000 ha.	231	130	155	82	62
Corn production . . . . .	1,000 tons	2,185	2,414	3,032	3,316	3,688
Yield . . . . .	Cent./ha.	18.7	20.3	22.9	26.3	29.5
Area . . . . .	1,000 ha.	1,167	1,174	1,314	1,269	1,250
Potato production . . . . .	1,000 tons	1,993	1,916	2,107	1,734	2,237
Yield . . . . .	Cent./ha.	68.6	88.1	104.4	79.2	113.0
Area . . . . .	1,000 ha.	290	218	237	220	198
Sugarbeet production . . . . .	1,000 tons	965	2,141	2,389	3,089	3,466
Yield . . . . .	Cent./ha.	203.4	186.1	211.0	247.4	318.0
Area . . . . .	1,000 ha.	47	115	113	126	109

Note: 1 centner (cent.) = 220.46 lbs; 1 hectare (ha.) = 2.471 acres.

Source: Statistical Yearbook, 1963, 1966, Budapest.

show an increase in each successive 5-year period (table 3). However, the drop in 1966 was more severe than any in the postwar period and, despite increases in 1967 and 1968, the 1966-70 average is not expected to equal 1961-65's. The continuous increase in poultry numbers is largely due to the lack of restrictions on numbers privately owned. The

number of sheep tripled between 1950 and 1964 and has remained steady since then. Horse numbers have declined continuously, giving way to machine draftpower.

Recent government policy has placed more emphasis on efficient breeding and feed techniques than on increases in livestock

Table 3.--Livestock numbers in Hungary, averages 1951-65, annual 1935 and 1966

(March census)

Livestock	1935	Averages			1966
		1951-55	1956-60	1961-65	
		<u>1,000 head</u>			
Cattle . . . . .	1,911	2,108	2,011	1,940	1,973
Cows . . . . .	961	877	891	801	766
Hogs . . . . .	4,674	4,857	5,594	6,216	5,799
Sheep . . . . .	1,450	1,756	2,416	3,048	3,270
Horses . . . . .	886	694	704	363	295
Poultry . . . . .	21,919	19,052	25,307	28,388	28,589

Source: Statistical Yearbooks, 1963, 1966, Budapest.

Table 4.--Meat, milk, egg, and wool production in Hungary, averages 1951-65, annual 1938 and 1966<sup>1</sup>

Product	Unit	1938 <sup>2</sup>	Averages			1966 <sup>3</sup>
			1951-55	1956-60	1961-65	
Beef . . . . .	1,000 tons	(96.0)	69.3	107.4	134.6	140.0
Veal . . . . .	....do.....	(96.0)	7.1	6.8	2.8	2.0
Pork . . . . .	....do.....	155.0	182.0	247.0	295.8	274
Mutton . . . . .	....do.....	9.0	6.6	8.5	13.3	14.0
Horse meat . . . . .	....do.....	7.0	5.8	16.5	9.4	5.5
Total meat . . . . .	....do.....	267.0	270.8	386.2	455.9	435.5
Poultry meat <sup>4</sup> . . . . .	....do.....	83.0	102.8	118.1	132.4	157.4
Wool . . . . .	....do.....	8.1	4.7	7.4	9.8	10.4
Milk . . . . .	Mil. liters	1,525	1,401	1,784	1,779	1,790
Eggs . . . . .	Mil.	844	1,011	1,708	2,021	2,435

<sup>1</sup> Domestic meat production in carcass weight; includes livestock exports for slaughter.<sup>2</sup> 1934-38 average for meat and poultry.<sup>3</sup> Estimate.<sup>4</sup> Dressed weight excluding fat.

Source: Mezogazdasagi Statisztikai Zsebkönyv, 1960, 1963, 1967, Budapest; Statistical Pocket Book of Hungary 1967, Budapest.

numbers. However, current special goals are to improve the ratio of cows to cattle and to build up hog numbers to the 1965 peak level. Bonuses granted for every heifer raised, and hog producer price increases--first in the fall of 1967 and again in January 1968--are some of the steps the Government is taking to achieve these goals.

Among the sectors, collectives have the most livestock per hectare (if privately owned livestock on collectives are included). The right to household plot cultivation includes the right to keep one cow, two heifers, three to four hogs, five sheep, and an unrestricted number of poultry.

A trend from small-scale to large-scale livestock husbandry operations is developing,

but lack of investment and inadequate shelters are not permitting a swift change.

Average red meat production in 1961-65 was 71 percent above that of 1938. By 1966, the increase came to a halt--primarily because of a drop in pork production (table 4). After the war, emphasis was placed on producing pork and poultry rather than beef and veal because of the faster reproduction rate of hogs and poultry. In the 1960's, the rate of increase of beef and veal production has exceeded that of other meats. Milk production has remained stable in the last 10 years despite the reduced number of cows, pointing to an increase in productivity. Production of eggs and wool has increased.

## FOOD CONSUMPTION

Hungary's average per capita food consumption is over 3,000 calories per day. This is quantitatively adequate, but the share of protein in the total is about 15 percent less than in most West European countries. Per capita meat consumption in 1965 was 51.6 kilograms, the highest level attained so far in Hungary. In 1966 and 1967, increased meat prices and a pork shortage reduced meat consumption slightly. Of total meat consumed, pork makes up half and poultry, 20 percent. The share of poultry consumption has grown in the 1960's; beef consumption has also increased along with increased per capita income, following the pattern observed in Western nations.

After a postwar decline until about 1960, cereal consumption has leveled out. Rice and sugar consumption have shown a continuous

upward trend in the postwar period, while potato consumption has trended downward.

The Hungarians presently spend about 50 percent of their income for food, beverages, and tobacco. In 1966, the share of food in total expenditures was 55 percent for collective farmers, 47 percent for blue-collar workers, and 42 percent for white-collar workers, illustrating the inverse relationship between income and the share of income spent on food.

Consumption of nonbasic items like coffee, tea, and cocoa has shown a considerable increase during the 1960's, when more foreign exchange has been allocated for imports of these commodities. Wine consumption has remained stable in the last 30 years, but beer consumption has increased fourfold, reflecting a price relationship favoring beer.

## FOREIGN TRADE

Hungary is poor in raw materials and fuel. To assure steady industrial production and full employment, imports of these basic materials are critical for Hungary. Promotion of exports to earn enough foreign exchange to pay for these needed imports is a major concern.

Foreign trade turnover of 37 billion forint<sup>5</sup> in 1966 was equal to 20 percent of net national income. Trade is expected to grow faster than any other segment of the economy in the coming years.

In the prewar years, the Hungarian balance of trade was usually positive; after the war, it became negative in a majority of years. It turned increasingly unfavorable between 1960 and 1964, improved slightly in 1965, showed a slight surplus in 1966, and was negative again in 1967.

The trade gap is more serious with developed Western nations than with Communist countries or developing countries. To cover hard-currency shortages, a vigorous drive started several years ago to attract Western tourists. Efforts are also being made to keep trade with each country bilaterally in balance.

Before the war, agriculture had a dominant position in Hungarian foreign trade. After the war, the disruption of agricultural production and stepped-up industrialization changed the composition of foreign trade. Between 1964 and 1966, agricultural products represented an average of 24 percent of total exports, compared with over 60 percent in the prewar years. Agricultural imports were about 19 percent of total imports between 1964 and 1966 and included grain, an export commodity before the war. Despite agriculture's secondary position in foreign trade, it remains significant because of the favorable trade balance in agricultural products.

<sup>5</sup> \$1 equals 11.74 foreign exchange forint.

Not only the composition but also the direction of foreign trade has changed. The Soviet Union, which had no trade relations with Hungary before the war, has become Hungary's foremost trading partner. Since 1960, about two-thirds of total Hungarian trade has been with other Communist countries and one-half of that has been with the Soviet Union (table 5). Government officials indicate that this trade pattern will be continued in coming years.

The huge Soviet market is the largest outlet for a variety of exportable Hungarian commodities like poultry, vegetables, and fruits. In return the U.S.S.R. supplies Hungary with much of its raw materials. East Germany and Poland are next in importance in Hungary's foreign trade. West Germany, Italy, Austria, the United Kingdom, and Switzerland are the leading trading partners in the West, but none of these countries have captured more than 6 percent of total Hungarian trade in any post-war year.

In agricultural trade, non-Communist countries are prominent. In 1966, these supplied 72 percent of Hungary's imports of food products and received 52 percent of Hungary's exports in this trade category.

Hungary became a wheat importer after the war, with yearly imports reaching several hundred thousand tons (table 6). The U.S.S.R. and France formerly were the most frequent suppliers, but in 1964 the United States and in 1965 Canada shipped the largest amounts. With self-sufficiency in breadgrain production under normal weather conditions a major policy objective, the Government does not intend to import wheat in the future.

The Government sees no likelihood of the country's producing enough feedgrain domestically to satisfy livestock requirements. The U.S.S.R. and France have been the leading barley suppliers. No steady pattern can be

Table 5.--Regional percentage distribution of Hungary's foreign trade, 1960-66

Year	Imports from--				Exports to--			
	Communist countries <sup>1</sup>	Developed countries	Under-developed countries	Total	Communist countries <sup>1</sup>	Developed countries	Under-developed countries	Total
	<u>Percent</u>							
1960...	70.4	25.8	3.8	100	71.3	22.8	5.9	100
1961...	68.7	26.6	4.7	100	73.5	19.9	6.6	100
1962...	71.4	23.5	5.1	100	73.7	20.9	5.8	100
1963...	69.0	25.4	5.6	100	70.4	24.0	5.6	100
1964...	66.0	27.0	6.4	100	71.2	23.0	5.8	100
1965...	67.0	26.8	6.2	100	70.1	23.2	6.7	100
1966...	64.9	28.0	7.1	100	68.3	26.0	5.7	100

<sup>1</sup> Including Cuba after 1961.

Source: Statisztikai Havi Kozlemenye 1967/12, Budapest, p. 45.

Table 6.--Hungary's principal agricultural imports, by quantity, 1960-66

Commodity	1960	1961	1962	1963	1964	1965	1966
	<u>1,000 tons</u>						
Wheat and flour . . . . .	314.4	448.0	225.4	340.4	332.0	122.0	129.7
Feed grain . . . . .	41.5	184.5	483.7	279.9	268.1	550.3	126.0
Rice, milled . . . . .	17.6	21.1	17.4	18.8	17.4	21.4	40.6
Meat . . . . .	24.9	18.9	20.3	37.0	43.4	34.2	31.0
Soybeans . . . . .	n.a.	n.a.	n.a.	n.a.	15.8	30.2	23.4
Citrus fruit . . . . .	18.8	18.6	35.9	30.1	39.1	36.5	43.1
Coffee . . . . .	3.3	3.3	5.5	6.9	11.0	12.6	13.5
Cocoa beans . . . . .	4.1	3.3	6.3	7.2	7.0	12.5	9.8
Cotton . . . . .	62.3	68.0	65.1	63.6	68.4	72.1	78.2
Wool <sup>1</sup> . . . . .	5.7	4.3	3.8	3.8	4.6	3.4	5.2
Hides and skins . . . . .	18.6	21.1	19.1	18.8	21.4	24.6	24.1
Fats and lard . . . . .	5.0	11.1	19.4	12.1	17.8	9.2	7.1
Tobacco (fermented) . . .	3.3	7.5	6.5	4.6	5.0	4.9	8.1

<sup>1</sup> Includes greasy wool.

Source: Statisztikai Evkonyv, 1962, Budapest; Statistical Yearbooks, 1963-66, Budapest.



observed in suppliers of corn. The U.S.S.R. in 1962, the United States in 1964, and Argentina in 1965 were the chief sources of corn imports. The United States is the largest supplier of grain sorghum and soybean meal to Hungary.

Cotton, rubber, jute, citrus fruits, coffee, and cocoa are not grown in Hungary and are important imports. To supplement domestic production, rice, livestock feed, hides and skins, and tobacco are also imported.

Hungary's most important agricultural export commodities are cattle and hogs for slaughter, livestock products, vegetables, fruits, and wine (table 7). Almost all the cattle are exported to Western Europe, with 50 percent going to Italy and 20 percent to West Germany. The best markets for hogs are Austria, Italy, and Czechoslovakia.

Foreign trade with Communist countries is regulated by trade agreements under the auspices of CEMA, and they are negotiated usually for a 5-year term, coinciding with the duration of national plans. Agreements are bilateral in most cases and a protocol is

signed yearly for exact quantities. For multi-lateral transactions, a set of exchange ratios are established, and the U.S.S.R. is designated as a clearinghouse. Outside the CEMA countries, all trade is negotiated bilaterally.

Even under the NEM's more liberalized trading provisions, exports and imports will continue to be licensed to safeguard government obligations and long-range policy objectives. Government authority will be exercised also to ensure a balance of trade.

New tariff rates came into effect in 1968. The new rates reciprocate Most Favored Nation (MFN) treatment and retaliate with higher tariffs against other countries. The tariffs for most agricultural products are set twice as high for countries not granting MFN treatment to Hungary as for countries with preferential arrangements. The United States does not grant MFN treatment to Hungary.

Hungary has considerable difficulty penetrating Western markets with finished industrial products. It is a latecomer in this very competitive market and is not able to offer satisfactory volume or quality. Hungarian

Table 7.--Hungary's principal agricultural exports, by quantity, 1960-66

Commodity	1960	1961	1962	1963	1964	1965	1966
	<u>1,000 tons</u>						
Cattle for slaughter. . . .	n.a.	n.a.	50.2	72.5	54.9	71.8	80.7
Hogs for slaughter. . . .	n.a.	n.a.	18.1	17.9	6.1	28.9	28.3
Poultry meat . . . . .	15.4	20.8	26.4	27.2	34.1	36.1	34.5
Red meat. . . . .	22.9	21.7	40.7	36.8	31.0	39.8	48.2
Wheat and flour. . . . .	68.1	120.2	47.8	57.5	25.9	108.2	13.6
Corn. . . . .	37.6	53.5	34.2	25.5	63.9	92.7	42.7
Fresh fruit . . . . .	55.8	146.7	113.0	207.0	204.9	195.0	198.0
Fresh vegetables. . . . .	92.1	71.7	98.6	138.3	105.0	113.0	147.0
Sugar, refined. . . . .	27.7	80.8	109.0	86.2	147.0	139.0	63.0
Eggs <sup>1</sup> . . . . .	117.5	135.1	60.0	90.7	197.6	344.3	288.0
Wine <sup>2</sup> . . . . .	508.5	410.8	335.2	401.8	569.4	689.0	720.0

<sup>1</sup> Millions.

<sup>2</sup> 1,000 hectoliters.

Source: Statisztikai Evkonyv, 1962, Budapest; Statistical Yearbooks, 1963-66, Budapest.

exports of agricultural products have faced difficulty overcoming the excess duties in the United Kingdom and the recently established price levies in the European Economic Community.

Because Hungary has only an observer status in the General Agreement on Tariffs and Trade (GATT), it did not benefit from the Kennedy Round tariff reductions.

Under the NEM, Hungarian foreign trade methods have also changed. The number of

foreign trade enterprises has been increased from 42 to 67, and instead of acting independently as they did in the past, the enterprises act as middlemen between buyers and producers. International prices are expected to have a direct influence on production.

U.S.-Hungarian trade is relatively small, accounting for only about 1 percent of total Hungarian trade. U.S. exports, because of large wheat shipments, reached their highest level--\$17 million--in 1963 (table 8). U.S.

Table 8.--U.S. - Hungarian trade by principal commodities, 1963-67

Commodity	U.S. exports to Hungary				
	1963	1964	1965	1966	1967
	1,000 dollars				
All commodities . . . . .	17,265	13,649	9,220	10,047	7,516
Agricultural commodities . . . . .	16,453	12,759	8,006	7,731	4,336
Principal agricultural commodities					
Wheat . . . . .	7,885	2,486	--	--	--
Corn for feed . . . . .	5,960	164	--	296	20
Soybean oilcake . . . . .	1,131	3,422	2,777	1,815	3,467
Soybeans . . . . .	1,030	2,451	3,550	996	191
Calf and kid skins . . . . .	165	--	--	951	--
Cattle hides . . . . .	--	--	706	495	31
Grain sorghum . . . . .	--	--	--	2,785	--
Nonfat dry milk . . . . .	--	1,352	--	--	--
Cotton, excl. linters . . . . .	--	2,267	--	--	--
Meat . . . . .	--	--	--	--	380
	U.S. imports from Hungary				
	1963	1964	1965	1966	1967
	1,000 dollars				
All commodities . . . . .	1,544	1,668	2,072	2,943	3,656
Agricultural commodities . . . . .	237	331	434	572	766

Source: U.S. Foreign Agricultural Trade by Countries, Calendar Year 1965, Nov. 1966, and Calendar Year 1966, Nov. 1967; Foreign Agricultural Trade of United States, July 1968; U.S. Dept. Agr., Econ. Res. Serv.



exports to Hungary in 1966 amounted to \$10 million, while U.S. imports from Hungary were valued at \$2.9 million. U.S. exports in 1967 declined to \$7.5 million, partly because of Hungarian efforts to reduce the accumulated trade deficit, while U.S. imports continued their steady rise to \$3.6 million. Between 1963 and 1966, 85 percent of U.S. exports to

Hungary were agricultural, compared with only 17 percent of U.S. imports from Hungary.

Hungary would like to receive Western credits and permit Western capital participation in joint undertakings, particularly in areas where the investment generates increased capacity for hard-currency earnings.

## PLANS AND OUTLOOK

The 1966-70 5-year plan was prepared before the NEM had been introduced. To date, the following targets set in the 1966-70 plan remain as the basic growth objectives:

	<u>Annual percentage increase</u>
Investment	8-10
Industrial production	6
Agricultural production	2-3
Foreign trade	6-7
Real wage	1-1.5
National income	3.5-4
Per capita income	2.5-3
Consumption	2-2.5

ceeded the plan targets in the first 2 years, but crop prospects in 1968 were hurt by an extensive drought during the spring.

In coming years, crop area distribution is supposed to follow the present pattern, with some increase planned in the area for vegetable production. Adherence to a policy of self-sufficiency in breadgrain production and of maintenance of livestock inventories at least at their present level does not allow much leeway for shifts from grain to other commodities. The planned increase in domestic fertilizer production may facilitate its use on meadows and pastures, which are neglected at present. The use of machinery is planned to spread to more phases of cultivation and to more farms. Additional irrigation facilities are being constructed and are planned to double from 1966 to 1970.

It is too early to evaluate how the main objective of 1968's economic reform--the harmonization of central planning with the influences of market forces--is succeeding. Probably several years will pass before the effects of the NEM can be evaluated.

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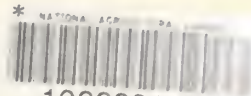
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